UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/434,299	11/05/1999	JAMES A. JOHANSON	JOHANSON79-3	3784

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FARKAS & MANELLI PLLC
2000 M STREET N W 7TH FLOOR
WASHINGTON, DC   200363307

EXAMINER
ANYA, CHARLES E

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No. 09/434,299	Applicant(s) JOHANSON ET AL.
	Examiner Charles E Anya	Art Unit 2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3/_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *1/6/03* .

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-17* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-17* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

  If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1. ☐ Certified copies of the priority documents have been received.

  2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

  a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Pat. No. 5, 802, 351 to Frampton in view U.S. Pat. No. 5,537,576 to Perets et al.

and further in view of Feemster et al.

As to claim 1, Frampton teaches a Shared Memory (Dual Random Access

Memory Device 31, Col. 3, Ln. 18 – 26), a First Processor (MCU System 21, Col. 3, Ln.

18 – 26), a Second Processor (DSP System 22, Col. 3, Ln. 18 – 26), a First Mailbox

Portion (Figure 4, MCU to DSP ---→ Zero to Size – 1, Col. 5, Ln. 35 – 38), a Second

Mailbox Portion (Figure 4, DSP to MCU --→ Size to Last, Col. 5, Ln. 35 – 38), a Low

Physical Address End (Zero, Col. 5, Ln. 35 – 38), a High Physical Address (Size – 1,

Col. 5, Ln. 35 – 38) and having write access to the first mailbox portion (Col. 8, Ln. 1 –

17).

Frampton do not explicitly teach filling downward toward the low physical address and

the first processor as not having access to the second mailbox portion.

Perets teaches filling downward toward the low physical address (Col. 6, Ln. 32 – 41,

Col. 8, Ln. 40 – 52).

Feemster teaches the first processor as not having access to the second mailbox

portion (Col. 4, Ln. 4 – 16). It would have been obvious to improve upon the system of

taught by Frampton by implementing the improvements detailed above because it would

provide the system taught by Frampton with the enhanced capability of reduced latency,

overhead and eliminate concern about overwriting information (Col. 4, Ln. 30 – 45).

As to claim 2, Frampton teaches second processor as having access to the

second mailbox portion (Col. 7, Ln. 4 – 9).

Frampton does not explicitly teach the second processor as not having access to the

second mailbox portion.

Feemster teaches the first processor as not having access to the second mailbox

portion (Col. 4, Ln. 4 – 16). It would have been obvious to improve upon the system of

taught by Frampton by implementing the improvements detailed above because it would

provide the system taught by Frampton with the enhanced capability of reduced latency,

overhead and eliminate concern about overwriting information (Col. 4, Ln. 24 – 45).

As to claim to 3, Frampton teaches the first processor as having read access to

the first mailbox (Col. 6, Ln. 41 – 45).

Frampton is silent with reference to the first processor having read access to the second

mailbox portion.

Feemster teaches a first processor that has read access to the second mailbox portion

(Col. 4, Ln. 17 – 23). It would have been obvious to improve upon the system taught by

Frampton by implementing the improvements detailed above because it would provide

the system of Frampton with the enhanced capability of eliminating latency (Col. 5, Ln. 1 – 11).

As to claim 4, claim 3 meets claim 4 except for the second processor having read access to the second mailbox portion.

Frampton is silent with reference to the second processor having read access to the second mailbox portion.

Feemster teaches a second processor that has read access to the second mailbox portion (Col. 4, Ln. 1 – 16). It would have been obvious to improve upon the system taught by Frampton by implementing the improvements detailed above because it would provide the system of Frampton with the enhanced capability of eliminating latency (Col. 5, Ln. 1 – 11).

As to claim 5, Frampton teaches a Dual Port Random Access Memory (Dual Port Random Access Memory Device 31, Col. 18 – 21).

As to claim 6, see the rejection of claims 1 and 3.

As to claim 7, see the rejection of claims 2 and 4.

As to claim 8, see the rejection of claim 1.

As to claim 9, Frampton teaches a Minimum Length (Zero, Col. 5, Ln. 9 – 24).

As to claim 10, Frampton teaches a Minimum Length (Size, Col. 5, Ln. 30 – 38).

As to claim 11, Frampton teaches reallocating a portion of a minimum length of the first physical address end (Col. 5, Ln. 30 – 36).

As to claim 12, Frampton teaches reallocating a portion of a minimum length of the second physical address end (Col. 5, Ln. 30 – 36). Also see the rejection of claim 1.

As to claim 13, see the rejection of claim 1.

As to claim 14, see the rejection of claim 9.

As to claim 15, see the rejection of claim 10.

As to claim 16, see the rejection of claim 11.

As to claim 17, see the rejection of claim 12.

Response to Arguments

3.   Applicant's arguments filed 1/6/03 have been fully considered but they are not persuasive.

As per Applicant's argument that neither Frampton nor Perets teaches filling memory downward, the Examiner would like to disagree with this conclusion. Referring the Applicant to column 6 lines 3 – 37 (figure 2), firstly, the "bottom address" of the memory bank 14 and the " top address" of the memory bank 15 are marked as dashed lines 36 and 37 respectively, an indication that memory bank 14 fills towards the bottom address. Secondly, the address starting from FFFF (i.e memory bank 14) is decremented by one to FFFE while the address that starts from 0 (i.e memory bank 15) is incremented from 0 to 1. By decrementing memory bank 14 from FFFF to FFFE a downward memory filling is achieved.

Applicant's argues that the expandable memory of Perets does not teach the maximization of a given data space of current application and as a result the combination is improper, but fails to specifically argue why the combination of Frampton and Perets is improper.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Charles E Anya whose telephone number is (703) 305-

3411. The examiner can normally be reached on M – F (First Friday off) from 8:30 am

to 5:30 pm.

The fax phone number for the organization where this application or proceeding

is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

3900.

Charles E Anya
Examiner
Art Unit 2126
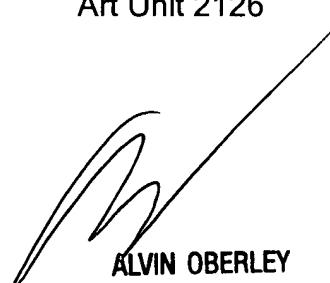
ALVIN OBERLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100